ABUBAKAR - OJO PATIENCE ONAMIDE

191MHS01023

MEDICINE AND SURGERY

CHEMISTRY ASSIGNMENT

1.) Name the functional groups present in each of the following molecules

a.) $CH_2=C(OH)HCHO$: Alkene group, Aldehyde group, hydroxyl group.

b.) $C_6H_5CH(NH_2)COCH_3$: Amine group, Alkyne group.

c.) $CH_3C=CHCH(OH)CHO$: Alkene group, Hydroxyl group, Aldehyde group

2. A 0.856g sample of pure (2R,3R) tartaric acid was dissolved to $10cm^3$ with water and placed in a 1.0dm polarimeter tube. The observed rotation at 20°C was +11.6°. Calculate the specific rotation of (2R,3R)-tartaric ac

Solution:

0.856g in $10cm^3$ of solution

$1cm^3 = 1mL$

$10cm^3 = 10mL$

$0.856 \times 10 = 0.0856 gmL^{-1}$

$[\alpha]_c^{20} = \alpha/l$, so $[\alpha] = 1.0/(1.00dm)(0.0856) = 1.0/1 \times 0.0856 = +11.6$

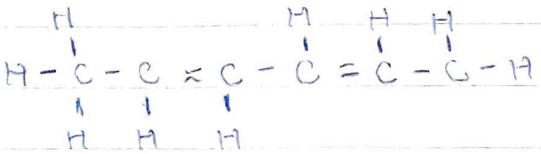
$= +11.68°$

Specific rotation of (2R,3R) tartaric ac

3. Draw the possible geometric isomers (where possible) for each of the following compounds a) Hexa-2,4-diene b.) 2,3-Dimethylbut-2-e

a

a.) Hexa-2,4-diene



B.) 2,3-Dimethylbut-2-ene